

**SOLICITATION FOR FINANCIAL
ASSISTANCE APPLICATIONS
NO. DE-PS26-03NT15392-0**



“MICROHOLE TECHNOLOGY DEVELOPMENT”

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ISSUING OFFICE:
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APPLICATION DUE DATE:	January 30, 2004 (8:00 P.M. EASTERN TIME)



Information regarding this solicitation is available on the
Department of Energy, Industry Interactive Procurement System
(IIPS)

website at: <http://e-center.doe.gov>

SECTION I – TECHNICAL REQUIREMENTS

1.1 SUMMARY

The primary mission of the Department of Energy (DOE) - National Oil Program, implemented through the National Energy Technology Laboratory (NETL)–s National Petroleum Technology Office (NPTO) in Tulsa, OK, is to conduct oil related research and development activities. The purpose is to expand the knowledge base through which industry can bring additional oil reserves and new technology options into the marketplace in a cost effective and environmentally acceptable manner. The goal of the Microhole Technology (MHT) Solicitation is to support Reservoir Life Extension / Domestic Resource Conservation by facilitating exploration and production companies in the effort to find, characterize and develop shallow domestic oil and natural gas resources inexpensively. This solicitation will demonstrate present MHT capabilities and develop missing key MHT components. Microhole Technology will consist of the techniques and tools used to drill, complete and characterize reservoirs up to 5,000 feet deep in a 3 ½” diameter borehole. Microhole drilling will use a coiled tubing drilling rig and appropriate Logging While Drilling (LWD), Measurement While Drilling (MWD), Directional Assembly (DA) and Positive Displacement Motor (PDM) to drill a 3 ½” borehole to a minimum of 5,000 feet True Vertical Depth (TVD) and a minimum 1,000 feet directional displacement from the surface well location. Microhole completion equipment are those items necessary to run, set and cement casing and associated downhole tubulars (packers, sleeves, nipples, screens, etc...), surface wellhead, perforation tools and stimulation tools. Microhole reservoir characterization equipment includes Vertical Seismic Profiling (VSP) and downhole reservoir sensors. Portions of Microhole Technology exist and are now in use in coiled tubing and slimhole drilling.

1.2 BACKGROUND INFORMATION

The goals of the Department of Energy–s Fossil Energy Oil Program are derived from the National need for increased oil production as a part of the national security, requirements for Federal lands stewardship and increased protection of the environment. Microhole Technology supports these goals. Approximately 2/3rds of all the oil discovered in the United States remains in the ground. Of that over half (218 Billion Barrels) is in reservoirs shallower than 5,000 feet. Over 20,000 shallow development wells are drilled annually in the USA. Micro Hole Technology directly targets the exploitation and characterization of shallow fields by improving the recovery efficiency of the shallow development wells. In addition, the program supports the National Energy Policy goals to increase domestic oil exploration through continued partnership with public and private entities and to promote enhanced oil recovery from existing wells through new technology. By providing demonstrations of new technologies and approaches that improve oil recovery and increase hydrocarbon reserves the oil program will augment the domestic oil supply.

The solicitation has two separate Areas of Interest:

Area 1 – Field Demonstration

Area 1 is a field demonstration of existing commercial microhole technology and applications in different regions of the United States. The purpose of Area 1 is to show the exploration and production (E&P) community contemporary microhole capabilities, generate interest and gain industry acceptance.

Area 2 – Technology Development

Area 2 is comprised of four (4) separate technical topics: (1) Built For Purpose Microhole Coiled Tubing Rig (MCTR); (2) Self Contained “Zero Discharge” Drilling Mud System; (3) Microhole Coiled Tubing Bottom Hole Assemblies; or (4) Microhole Completion and Production Equipment.

In Area 2 new tools will be developed and manufactured that will enable oilfield service companies to bridge the gap from existing commercial technology to the Microhole Technology goal. Proposed projects must address only one specific topic (reference 1.3 below) and identify a problem the E&P community has with contemporary microhole capabilities.

1.3 SOLICITATION OBJECTIVES

The objective of this solicitation is to receive applications for cost-shared development and demonstration projects using microhole technologies in the United States. The two solicitation Areas of Interest are described below.

Area of Interest 1 – Field Demonstration

Projects in Area 1 promote the National Energy Policy goal of enhanced oil and gas recovery with advanced technology. Applications in Area 1 will be drilling programs that demonstrate current microhole technologies in different geographic regions of the United States. Area 1 will accept drilling program applications with a minimum 50% cost share for drilling new or extending existing wells using a coiled tubing drilling system. Each drilling program must have a minimum of three wells. The successful awards will be with different E&P companies in diverse geographic locations. A coiled tubing drilling system must be used to drill the last length of hole. This hole will be no more than 4 ¾” diameter and no less than 1,000 feet long. The wells may be new or reentries and used for exploration or production. The wells may also be used for downhole seismic data gathering with geophones or Vertical Seismic Profiling. Technology transfer of the drilling program results will be a requirement.

Area of Interest 2 – Technology Development

Applications submitted under Area 2 must target one (1) of four (4) specific technical topics (shown below) for the development and manufacture of equipment required to fulfill the Microhole Technology goal. This equipment will be an evolutionary advance

over existing designs. Proposed equipment will complement the Microhole Technology goal of drilling, completing and characterizing reservoirs a minimum of 5,000 feet TVD and 1,000 feet directional displacement in a 3 ½" borehole. All component applications must be compatible with the Microhole Coiled Tubing Rig. DOE personnel will coordinate compatibility issues between manufacturers. The DOE Project Managers will have periodic meetings of Area 2 Contractors to facilitate a fully functional Micro Hole Drilling System. DOE personnel will coordinate compatibility issues between manufacturers. A minimum 20% cost share is required for any Area 2 application.

Applications must target only one (1) of the following four (4) topics; moreover, the number of awards, as well as the amount of DOE funding is different amongst these topics (Reference Article 2.2):

1. Built for purpose Microhole Coiled Tubing Rig (MCTR). The MCTR will handle 1" through 2 3/8" coiled tubing. The rig will be able to drill and case surface, intermediate, production and liner hole intervals. The rig will be able to drill with coiled tubing and conventional rotary or top drive. The rig will be able to run at a minimum 7 5/8" range 2 casing. The MCTR may be truck, trailer or skid mounted and meet USDOT limitations. The MCTR may be more than one load. If skid mounted the rig must be helitransportable. The MCTR must be readily adaptable to support low-cost directional drilling and through-tubing micro-lateral drilling from existing wells. The MCTR must be able to drill with low density, compressible drilling fluids. The MCTR design will facilitate quick reel or coiled tubing changes in the field.

2. Self contained "zero discharge" drilling mud system. The mud system may be truck, trailer or skid mounted and meet USDOT limitations. If skid mounted it will be helitransportable. The mud system may be more than one load. The mud system will be compatible with the MCTR. The mud system will be able to mix, circulate downhole, clean and hold diesel or water based drilling mud. The mud system will have a minimum 200 bbl total capacity with active, reserve and trip tanks. The mud pump will be from a standard oilfield equipment manufacturer and be capable of circulating 15 gpm at 5,000 psi and 500 gpm at 1,000 psi. The mud system will have a solids control system capable of continuously separating the drill solids and "fine" low gravity drill solids. The mud system must be compatible with an underbalanced drilling system.

3. Microhole Coiled Tubing Bottom Hole Assemblies. Measurement While Drilling (MWD), Logging While Drilling (LWD), Directional Assembly (DA) and Positive Displacement Motor (PDM) suitable for drilling 3 ½" boreholes. Applications may be for all or any portion of these Bottom Hole Assemblies.

4. Microhole Completion and Production Equipment. Microhole Completion and Production equipment will include Cementing float shoe, collar, wiper plugs, cement head/plug launcher, packers, nipples, production systems, screens, sliding sleeves and accessories for use with 2 3/8", 2" and 1 ¾" coiled tubing.

NOTE: An application which contains more than a single topic will be rejected.

SECTION II - -CONDITIONS AND NOTICES

2.1 APPLICANT ELIGIBILITY (MAY 2001)

Any nonprofit or for-profit organization, university or other institution of higher education, or non-federal agency or entity is eligible to apply, unless otherwise restricted by the Simpson-Craig Amendment which is defined as follows:

Organizations which are described in section 501(c)(4) of the Internal Revenue Code of 1986 and engage in lobbying activities after December 31, 1995, shall not be eligible for the receipt of Federal Funds constituting an award, grant, or loan. Section 501(c) (4) of the Internal Revenue Code of 1986 covers:

“Civic leagues or organizations not organized for profit but operated exclusively for the promotion of social welfare, or local associations of employees, the membership of which is limited to the employees of a designated person or persons in a particular municipality, and the net earnings of which are devoted exclusively to charitable, educational or recreational purposes.”

Lobbying activities are defined broadly to include, among other things, contacts on behalf of an organization with specified employees of the Executive Branch and Congress with regard to Federal legislative, regulatory and program administrative matters.

Applicants that are seeking financial assistance under this solicitation are subject to the eligibility requirements of Section 2306 of the Energy Policy Act of 1992 (EPAAct).

In accordance with 10 CFR 600.502, a company shall be eligible to receive an award of financial assistance under a covered program only if DOE finds that-

(a) Consistent with Sec. 600.503, the company's participation in a covered program would be in the economic interest of the United States; and

(b) The company is either-

(1) A United States-owned company; or

(2) Incorporated or organized under the laws of any State and has a parent company which is incorporated or organized under the laws of a country which-

(i) Affords to the United States-owned companies opportunities, comparable to those afforded to any other company, to participate in any joint venture similar to those authorized under the Act;

(ii) Affords to United States-owned companies local investment opportunities comparable to those afforded to any other company; and

(iii) Affords adequate and effective protection for the intellectual property rights of United States-owned companies.

2.2 NUMBER, VALUE AND TYPE OF AWARDS (JAN 2000)

The table below depicts DOE's estimate of the projected number of awards to be made, as well as the maximum DOE funding and cost share.

Area/Technical Topic	Est. Total Project Value (DOE + Recipient)	Projected # Awards	DOE Cost Share %	Maximum DOE Funding per Project**
1	\$700,000	3-4	50	\$350,000
2.1	\$1,500,000	1	80	\$1,200,000
2.2	\$600,000	1	80	\$480,000
2.3	\$921,875	4	80	\$737,000
2.4	\$100,000	4	80	\$80,000

****Applications which exceed the maximum DOE funding shown above will be rejected (reference Section IV, Clause 4.3).**

The Government reserves the right to fund, in whole or in part, any, all, or none of the applications submitted in response to this solicitation and will award that number of financial assistance instruments which serves the public purpose and is in the best interest of the Government. The Government intends to use Cooperative Agreements as the type of award instrument(s).

2.3 COST SHARING REQUIREMENTS (DEC 1999)

In accordance with 10 CFR 600.30, the DOE has determined that a minimum non-Federal cost share for Area 1 is 50% of the **total** project value* (**NOT** 50% of the DOE share), and 20% of the **total** project value* (**NOT** 20% of the DOE share) for Area 2. Cost sharing must meet the requirements of 10 CFR 600.123 and 10 CFR 600.224. Allowable costs for cost sharing shall be in accordance with 10 CFR 600.127 and 10 CFR 600.222. Previous R&D and existing data will not be considered for satisfying the required cost share.

*Total Project Value = DOE share + Applicant cost share

2.4 AVAILABILITY OF FUNDS (AUG 1999)

Subject to federal appropriations, it is estimated that \$6,000,000 in funding (Area 1- \$1,050,000 and Area 2 - \$4,950,000) will be available for awards under this solicitation.

2.5 PROJECT PERIOD (AUG 2000)

The Government anticipates the project period for subject awards in Area 1 to be no more than one year in duration and subject awards in Area 2 to be no more than three years.

Projects in Area 2 must be structured with two budget periods (i.e. phases) separated by a decision point. Budget Period 1 shall include: Design and/or concept development and Budget Period 2 shall include Manufacture and Prototype Testing. The decision point is required so that

periodic evaluation can occur and decisions can be made as to continue or cancel the project based on the progress made.

2.6 REPORTING REQUIREMENTS (FEB 2001)

The Reporting Requirements identified in the model financial assistance agreement located at <http://www.netl.doe.gov/business/faapiaf/MODEL.PDF> are required to be submitted during performance of the award.

2.7 APPLICATION DUE DATE (FEB 2003)

Applications and amendments of applications must be received by January 30, 2004, not later than 8:00 PM Eastern Time. You are encouraged to transmit your application AT LEAST 24 HOURS before the deadline.

APPLICATIONS, OR APPLICATION FILES, THAT HAVE AN IIPS DATE/TIME STAMP LATER THAN THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

2.8 PROGRAM AREAS OF INTEREST (JAN 2003)

This solicitation contains two (2) program Areas of Interest identified in the solicitation objectives. Applicants are cautioned that this solicitation is a master solicitation and that each program area of interest has its own program-specific solicitation number for submission of applications. Program Area of Interest 1, Field Demonstration, has a solicitation number of DE-PS26-03NT15392-1. Program Area of Interest 2, Technology Development, has a solicitation number of DE-PS26-03NT15392-2. Furthermore applications for Area of Interest 2 must specify which one of the four topics the proposed project addresses.

Applications can not be submitted under the master solicitation (i.e., 15392-0).

Applicants should submit their application under the program area which best fits the majority of the effort to be performed. If an application is submitted under a program area of interest in which the DOE believes fits more appropriately in another program area of interest, the applicant will be directed to resubmit under the appropriate area of interest. Do not submit an identical application under more than one area of interest.

2.9 MORE THAN ONE APPLICATION (JAN 2003)

You may submit more than one application. Each application must have its own unique title on the subject line (i.e., project title and principal investigator/project director, if any). For each application, you must first click on "Create Application" and then complete the information requested.

2.10 ANTICIPATED SELECTION AND AWARD DATES (AUG 1999)

It is anticipated that selections will be made by March 30, 2004. Awards are expected to be made before September 30, 2004.

2.11 CONTENT OF RESULTING AWARD (NOV 2000)

Any agreement awarded as a result of this solicitation will contain the applicable terms and conditions found in the Model Financial Assistance Agreement located at the NETL Website located at:

<http://www.netl.doe.gov/business/faapiaf/MODEL.PDF>

Blank areas appearing in the model agreement indicated by “[]” will be completed after negotiations.

2.12 APPLICATION PREPARATION COSTS (DEC 1999)

This solicitation does not obligate the Government to pay any costs incurred in the preparation and submission of applications or in making necessary studies or designs for the preparation thereof or to acquire, or contract for any services.

2.13 COMMITMENT OF PUBLIC FUNDS (AUG 1999)

The Contracting Officer is the only individual who can legally commit the Government to the expenditure of public funds in connection with the proposed award. Any other commitment, either explicit or implied, is invalid.

2.14 FALSE STATEMENTS (AUG 1999)

Applications must set forth full, accurate, and complete information as required by this solicitation. The penalty for making false statements in applications is prescribed in 18 U.S.C. 1001.

2.15 CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER (CFDA) (DEC 2000)

81.089	Fossil Energy Research and Development	FE
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The Applicant shall put this CFDA number in Block 10 of the Standard Form 424, Application for Federal Assistance.

2.16 PARTICIPATION BY FEDERAL ORGANIZATIONS OR FEDERALLY AFFILIATED ORGANIZATIONS (JAN 2003)

Applications submitted by, or on behalf of: (1) a Federal agency; (2) a Federally Funded Research and Development Center (FFRDC), or (3) a Department of Energy (DOE) Management and Operating (M&O) contractor will not be eligible for an award under this solicitation. However, these organizations may be proposed as team members subject to the following guidelines.

a. For DOE M&O contractors, the proposed use of such entity must be authorized in writing by the DOE Contracting Officer or authorized designee responsible for managing the M&O Contractor. The applicant must also provide any additional submission requirements identified

in Section 3-Application Preparation Instructions of this solicitation. The DOE Contracting Officer responsible for managing the M&O Contractor must determine that performance by the M&O contractor: (1) is consistent with or complementary to DOE missions and the missions of the facility to which the work is to be assigned; (2) will not adversely impact execution of assigned programs of the facility; (3) will not place the facility in direct competition with the domestic private sector; and (4) will not create a detrimental future burden on DOE resources. DOE will make award to the applicant for the applicant's portion of the effort. For the M&O effort, DOE shall fund the work, in whole or in part, through a DOE field work proposal to the M&O contractor. If DOE funds a portion of the M&O effort, then the Recipient is responsible for funding the remaining portion of the effort through a Cooperative Research & Development Agreement (CRADA) or a service agreement utilizing their own funds.

b. For FFRDC contractors (other than a DOE M&O contractor), the proposed use of such entity must be consistent with the FFRDC's authority under its contract with the cognizant Federal agency and such work must not place the FFRDC in direct competition with the private sector. DOE shall fund the FFRDC work through an interagency agreement with the cognizant Federal agency.

c. For Federal agencies, the proposed effort must not place the agency in direct competition with the private sector. DOE shall fund the other agency work through an interagency agreement.

d. An applicant's cost sharing requirement shall be based on the total cost of the project, including the applicant's and the Federal agency, FFRDC and M&O's portions of the effort.

e. The estimated total cost of the Federal agency, FFRDC or M&O contractor(s) work, in the aggregate, shall not exceed twenty-five (25%) percent of the total estimated project cost.

2.17 DETERMINATION OF RESPONSIBILITY (JAN 2001)

DOE will evaluate the potential Recipient's responsibility before award. Responsibility determinations are focused on the Recipient's capability to manage and account for the funds, property and other assets provided and to perform satisfactorily under the terms of the award. If a potential Recipient is determined to not be in compliance or cannot or will not comply with generally applicable requirements (see 10 CFR Part 600, Appendix A), the contracting officer will find the Recipient not responsible and may either disapprove the application or use special restrictive conditions as a term of award.

2.18 APPLICATION CLARIFICATION (JULY 1999)

DOE reserves the right to require applications to be clarified or supplemented to the extent considered necessary either through additional written submissions or oral presentations.

2.19 APPLICATION ACCEPTANCE PERIOD (AUG 1999)

The minimum application acceptance period shall be 180 calendar days after the deadline(s) for receipt of applications.

2.20 AWARD WITHOUT DISCUSSIONS (AUG 2000)

Notice is given that award may be made after few or no exchanges, discussions or negotiations. Therefore, all applicants are advised to submit their most favorable application to the Government. The Government reserves the right, without qualification, to reject any or all applications received in response to this solicitation and to select any application, in whole or in part, as a basis for negotiation and or award.

2.21 PRESUBMISSION REVIEW AND CLEARANCES (AUG 1999)

Presubmission review under Executive Order 12372, "Intergovernmental Review of Federal Programs" is not required.

2.22 LOANS NOT AVAILABLE (JULY 1999)

Loans are not available under the DOE Minority Economic Impact (MEI) loan program, 10 CFR Part 800, to finance the cost of preparing a financial assistance application.

2.23 52.227-6 ROYALTY INFORMATION. (APR 1984)

(a) *Cost or charges for royalties.* When the response to this solicitation contains costs or charges for royalties totaling more than \$250, the following information shall be included in the response relating to each separate item of royalty or license fee:

- (1) Name and address of licensor.
- (2) Date of license agreement.
- (3) Patent numbers, patent application serial numbers, or other basis on which the royalty is payable.
- (4) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable.
- (5) Percentage or dollar rate of royalty per unit.
- (6) Unit price of contract item.
- (7) Number of units.
- (8) Total dollar amount of royalties.

(b) *Copies of current licenses.* In addition, if specifically requested by the Contracting Officer before execution of the contract, the offeror shall furnish a copy of the current license agreement and an identification of applicable claims of specific patents.

2.24 952.227-84 NOTICE OF RIGHT TO REQUEST PATENT WAIVER. (FEB 1998)

Offerors have the right to request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of the contract that may be awarded as a result of this solicitation, in advance of or within 30 days after the effective date of contracting. Even where such advance waiver is not requested or the request is denied, the contractor will have a continuing right under the contract to request a waiver of the rights of the United States in identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the contract. Domestic small businesses and domestic nonprofit organizations normally will receive the patent rights clause at DEAR 952.227-11 which permits the contractor to retain title to such inventions, except under contracts for management or operation of a Government-owned research and development facility or under contracts involving exceptional circumstances or intelligence activities. Therefore, small businesses and nonprofit organizations normally need not request a waiver. See the patent rights clause in the draft agreement in this solicitation. See DOE's patent waiver regulations at 10 CFR Part 784.

2.25 PERFORMANCE OF WORK IN THE UNITED STATES (FEB 2001)

As a condition of award under this solicitation, applicants must agree that at least 75% of the direct labor cost for the project (including subcontractor labor) will be incurred in the United States unless the applicant can demonstrate to the satisfaction of the DOE that the United States economic interest will be better served through a greater percentage of work performed outside the United States. For example, an Applicant may provide evidence that expertise to develop a technology exists only outside the United States, but that ultimate commercialization of the technology will result in substantial benefits to the United States such as improved electricity reliability, increased employment, increased exports of U.S.-manufactured products, etc.

2.26 LOCATE SOLICITATION, JOIN MAILING LIST, SUBMIT QUESTIONS, VIEW AMENDMENTS OR QUESTIONS AND ANSWERS (FEB 2003)

If you would like to receive notifications related to this specific solicitation, submit questions on the content of the solicitation, or view amendments or questions and answers, you should locate this solicitation, and then follow the appropriate directions:

LOCATE SOLICITATION

- Go to the IIPS website at <http://e-center.doe.gov> and click on “Browse Opportunities”, or login if you are registered.
- Click on any of the options for viewing the solicitation (whichever is easiest for you to locate this solicitation).
- Click on “Enter IIPS”.
- Locate and click on the solicitation number to view “Synopsis and Solicitation Information”.
- Click on hyperlink under “File Attachments” or “URL Links” to access the full solicitation or program notice.

JOIN SOLICITATION MAILING LIST.

Click on the “Join Solicitation Mailing List” button at the top of the page, enter the required information, and submit. After you have joined the list, you should receive an email when a solicitation message is posted. Even though you have joined the mailing list, you should visit the solicitation page periodically to ensure that you have the latest information.

VIEW AMENDMENTS.

Click on the yellow folder next to the solicitation number to view amendments and solicitation messages; or follow directions for “Locate Solicitation” to view a conformed copy of the solicitation (a line in the margin annotates changed sections).

SUBMIT QUESTION ON THE CONTENT OF THE SOLICITATION.

Click on the “Submit Question” button at the top and enter required information. You will receive an electronic notification that your question has been answered. DOE will try to respond to a question within 5 days, unless a similar question and answer have already been posted on the website.

VIEW QUESTIONS AND ANSWERS.

Click on the “View Questions” button at the top of the page. If no questions have been submitted and answered, a statement to that effect will appear at the top of the page. You should periodically check the IIPS website for new questions and answers.

2.26 DUNS NUMBER

All applicants, except individuals who would personally receive an award under this announcement apart from any business or non-profit organization they may operate, must include a Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number in their application. For the purpose of this requirement, the applicant is the entity that meets the eligibility criteria and has the legal authority to apply for an award. For example, a consortium formed to apply for an award must obtain a DUNS number for that consortium.

For assistance in obtaining a DUNS number at no cost to you, call the DUNS Number request line at 1 866-705-5711. Be prepared to provide the following information: 1) Organization name; 2) Address; 3) Local telephone number; 4) Name of the CEO/business owner; 5) Legal structure of the business (corporation, partnership, etc); 6) Year the organization started; 7) Primary line of business; 8) Total number of employees (full and part time). If you do not already have a DUNS number, you should obtain one as soon as you decide to submit an application.

SECTION III -APPLICATION PREPARATION AND SUBMISSION REQUIREMENTS

3.1 APPLICATION PREPARATION INSTRUCTIONS (FEB 2003)

To aid in evaluation, applications shall be clearly and concisely written. All pages shall be appropriately numbered and identified with the name of the applicant, the date, and the solicitation number to the extent practicable. Application files are to be formatted in the following software application: Word.

For consistency, the applicant is instructed to use the file names specified below. Filename extensions shall clearly indicate the software application used for preparation of the documents (i.e., “xxx.doc” for Word files).

MANDATORY FILES	FILENAME
Application	424.doc
Certifications and Assurances	540_1-4.doc
Project Summary	540_1-2.doc
Technical Discussion (limited to 100 pages)	TECHNICAL.doc
Budget	4600.4.doc
Budget Narrative	BUDGET NARRATIVE.doc
Attachment 1 - Statement of Project Objectives (INCLUDED IN 100 PAGE LIMIT)	SOPO.doc
Attachment 2 – Resumes of Key Personnel	RESUMES.doc

APPLICATION FORMS

The application form (SF 424), Certifications and Assurances (NETL F540.1-4), Project Summary (NETL F540.1-2), and Budget Form (SF 424A or DOE F 4600.4) are available on the NETL homepage at:

<http://www.netl.doe.gov/business/faapia f/main.html>.

Instructions for completion of the forms are contained on the back of each form. Questions on completion of the forms should be addressed to the Contract Specialist. You must complete the required information, type the name of the individual authorized to sign the form in the signature block, and save the file with the designated name for that form.

TECHNICAL DISCUSSION (FILENAME – TECHNICAL.doc)

This file shall include a cover page indicating the solicitation number, name and address of the Applicant, point of contact, telephone/FAX number/E-Mail address, title of project, date of application, and the technical discussion. It shall be double spaced, using 12 point font, 1" margins, and when printed will fit on size 8 1/2" by 11" paper.

DOE believes a thorough, concise technical discussion and Statement of Project Objectives (Attachment 1 described below) can be prepared within **a 100 page limit**. Applications that contain a discussion in excess of the requested page limit, shall, without compelling justification, receive a significant weakness under the technical evaluation criteria of the solicitation.

The technical discussion will consist of the Applicant's outline addressing the technical and management aspects of the project, the Applicant's capabilities and what the Applicant will do to satisfy the requirements of the solicitation. Since the technical information contained in this section will be evaluated to determine such matters as understanding of the work to be performed, technical approach, and potential for completing the desired work, it should be specific and complete in every detail. The technical discussion should be practical and be prepared simply and economically, providing a straightforward, concise delineation of what it is the Applicant will do to satisfy the requirements of the solicitation.

To help facilitate the review process and to insure maximum consideration under each of the four (4) evaluation criteria, the applicant shall use the following format when preparing the technical discussion and must provide ALL of the specified information listed below. This format relates to the technical evaluation criteria found in Section IV, and the weight assigned to each of the four (4) evaluation criterion is shown in parentheses. It should be noted that Criterion 2, 3, 4 are identical for both Area 1 and 2.

A. Area 1 (Field Demonstration):

The Technical Discussion for Area 1 shall be a drilling program with a minimum of three wells. The wells may be new or reentries. The wells do not have to be completed. Furthermore the applicant should discuss why certain features of the drilling program were chosen. . Applications must include an economic analysis of coiled tubing drilling versus rotary drilling and overall economics of the drilling program. The applicant may submit additional information if it contributes to the drilling program evaluation.

Criterion 1-Technical Merit: (50 points)

1. Show the relationship of the proposed work to DOE's goals and objectives. This includes the identification of the specific reason for using the application of small diameter drilling to reach an objective and how the proposed work will meet that objective more effectively than larger diameter drilling by including a discussion of the project's goals and objectives (i.e. Increased production, reserves, exploration, reduced data acquisition costs, reduced cost for drilling, etc.).
2. Describe how the current microhole technologies will be field tested in a specific geographic region. Include the rationale supporting the selection of the locations.
3. Provide a comprehensive discussion of the drilling and completion plan (i.e., the proposed drilling program with a minimum of three wells) with justification of methods used.

4. Discuss the potential for success in terms of the project contributing to a technical or economic breakthrough. Applications must include an economic analysis of coiled tubing drilling versus rotary drilling and overall economics of the drilling program (i.e. provide an economic analysis of small diameter drilling versus rotary drilling and the overall economics of reaching your objective). Provide two Authorizations for Expenditures (AFE). First AFE has costs based on fulfilling project with proposed coiled tubing drilling rig. Second AFE costs are based on using a conventional rotary drilling rig

B. Area 2 (Technology Development):

The Technical Discussion for Area 2 shall be a Micro-Hole Technology (MHT) equipment design file. Proposed equipment shall be an evolutionary improvement over existing designs. It is permitted to submit additional information if it contributes to the MHT equipment design evaluation. Area 2 applicants must identify which of the four topics: (1) built for purpose Microhole Coiled Tubing Rig (MCTR); (2) Self contained “zero discharge” drilling mud system; (3) Microhole Coiled Tubing Bottom Hole Assemblies; or (4) Microhole Completion and Production Equipment, their project addresses.

Criterion 1 -Technical Merit: (50 points)

1. Identify the topic area that the project addresses: 1) Built for Purpose Microhole Coiled Tubing Rig (MCTR); 2) Self-Contained “zero discharge” Drilling Mud System; 3) Microhole Coiled Tubing Bottom Hole Assemblies; or 4) Microhole Cementing Equipment. Show the relationship of the proposed work to DOE’s goals and objectives. This includes the identification of the specific problem and how the proposed work will solve the problem by including a discussion of the project’s goals and objectives.
2. Discuss the innovative or revolutionary advancement of the proposed work over existing equipment, and identify specific technical hurdles that must be overcome.
3. Provide conceptual drawings and describe the raw materials or components to be used to manufacture equipment. Provide Engineering Design Application Specifications, which address equipment limitations or minimum operating standards (e.g., WP, depth, length, OD, etc...). Provide basic design calculations to support conceptual specifications, which clearly demonstrate how the equipment will work in theory.
4. Describe the Quality Control standards or protocols, product test capabilities and proposed test standards that will be used.
5. Provide a fully detailed project milestone schedule -from concept development to final testing with justification for the approach – track with the tasks/subtasks identified in the Statement of Project Objectives.
6. Identify the critical decision points in the project, identifying the break between Design and/or concept development (Budget Period I) and Manufacture and Prototype Testing (Budget Period II)
7. Discuss the economic benefits to industry of new tool. Include the information as to how these benefits were calculated.

IT SHOULD BE NOTED THAT CRITERION 2, 3, 4 LISTED BELOW ARE IDENTICAL FOR BOTH AREAS 1 AND 2.

Criterion 2 - Organization, Management, Key Personnel, Facilities and Equipment: (30 points)

1. Provide an organizational Chart showing clear lines of authority and responsibility between all team members/subcontractors. Identify key personnel.
2. Provide a discussion of key personnel to be assigned to the project. What qualifies these personnel to work on the project? (Note – resumes should be provided as Attachment 2 – FILENAME: RESUMES.doc).
3. Project Management Plan, that discusses key personnel or job category assigned to each task. Include number of direct labor hours proposed for this project by task. Describe management tools available to detect project variances and make necessary adjustments.
4. Describe the qualifications of subcontractors and industry partners. Tie their role to the project.
5. Discuss any corporate R&D history and whether the Organization has a history of furthering technological innovation or development in their area. (e.g., list any innovations or patents of the Applicant's organization.)
6. Describe the applicant's drilling experience. How many wells are drilled each year by the applicant and what is the general success in completing projects?
7. Provide a table showing the breakdown of anticipated project travel (i.e., destinations; number of people; and purpose of each trip).
8. Fully describe the type, quality, availability and appropriateness of existing facilities, equipment and materials to be utilized in carrying out the proposed work.
9. Specify and justify any equipment to be purchased for use on the project.

Criterion 3 -Technology Transfer Plan: (10 points)

1. Describe the methods to be used to transfer the results of the project to generate interest and gain industry acceptance and identify the frequency of proposed technology transfer efforts (e.g., industry professional presentations, website, site visits, etc.). Identify the targeted audience.
2. List any prior technology transfer efforts that the organization or prime subcontractors have been involved with in the past.

Criterion 4 - STATEMENT OF PROJECT OBJECTIVES (SOPO) – (Attachment 1 – FILENAME: SOPO.doc) (10 points)

SOPO IS INCLUDED IN 100 PAGE LIMIT.

The Statement of Project Objectives (SOPO) is a concise description of all activities to be completed during the project. The SOPO is an opportunity for the applicant to sequentially describe the tasks done to finish the project. The SOPO will be evaluated to determine if the

work tasks are logical in their sequence and timing. Each Task in one or two paragraphs should describe the work and the amount of time to complete that Task.

Projects in Area 1 will have one Budget Period.

Projects in Area 2 must be structured with two budget periods (i.e. phases) which include: Design and/or concept development (Budget Period I) and Manufacture and Prototype Testing (Budget Period II).

The Statement of Project Objectives may be released to the public by DOE in whole or in part at any time. It is therefore required that it shall not contain proprietary or confidential business information.

The Statement of Project Objectives is generally less than 10 pages in total for the proposed work. Applicants shall prepare the Statement of Project Objectives in the following format:

TITLE OF WORK TO BE PERFORMED

(Insert the title of work to be performed. Be concise and descriptive.)

A. OBJECTIVES

Include one paragraph on the overall objective(s) of the work. Also, include objective(s) for each phase of the work.

B. SCOPE OF WORK

This section should not exceed one-half page and should summarize the effort and approach to achieve the objective(s) of the work for each Phase.

C. TASKS TO BE PERFORMED

Tasks, concisely written, should be provided in a logical sequence and should be divided into the phases of the project. This section provides a brief summary of the planned approach to this project.

BUDGET PERIOD 1/PHASE 1 (Required for Area 1 and 2.) For Area 1 – a single budget period/phase shall consist of the drilling program and field demonstration for three wells. For Area 2 – Budget Period 1/Phase 1 shall include Design and/or concept development activities

Task 1.0 - (Title)

(Description)

Subtask 1.1 (Optional)

(Description)

Task 2.0 - (Title)

(Description)

Subtask 2.1 (Optional)

(Description)

Note: continue number for additional Tasks.

BUDGET PERIOD 2/PHASE 2 (Required for Area 2 only). It shall include Manufacture and Prototype Testing activities)

Task 3.0 - (Title)

(Description)

Subtask 3.1 (Optional)

(Description)

Task 4.0 - (Title)

(Description)

Subtask 4.1 (Optional)

(Description)

Note: continue number for additional Tasks.

D. DELIVERABLES

The periodic, topical, and final reports shall be submitted in accordance with the attached “Federal Assistance Reporting Checklist” and the instructions accompanying the checklist.

[Note: The Recipient shall provide a list of deliverables other than those identified on the “Federal Assistance Reporting Checklist” that will be delivered. These reports shall also be identified within the text of the Statement of Project Objectives. See the following examples:

1. Task 1.1 - (Report Description)
2. Task 2.2 - (Report Description)]

E. BRIEFINGS/TECHNICAL PRESENTATIONS (If applicable)

The Recipient shall prepare detailed briefings for an annual presentation to the COR at the COR's facility located in Tulsa, OK. Briefings shall be given by the Recipient to explain the plans, progress, and results of the technical effort

RESUMES - (Attachment 2 - FILENAME – RESUMES.doc)

Provide Resumes for each individual identified under key personnel for this project.

BUDGET NARRATIVE

The applicant (prime) must provide a project budget showing the total cost of conducting the entire SOPO, and include the following budget detail. All teaming members and subcontractors are also required to submit a separate budget for their participation, which includes the below information. Failure to provide the detailed cost information as described in the instructions will result in an incomplete application.

As prescribed under Article 2.3 a minimum cost share is required by this solicitation, the applicant shall stipulate in the application the source and amount of cost sharing and the value of third party in-kind contributions proposed to meet the requirement. Attention is directed to Article 3.2 for a description of allowable/unallowable project costs to be recognized as satisfying the mandatory cost share.

REQUIRED BUDGET DETAIL:

PERSONNEL -- In support of the proposed personnel costs, provide a supplemental schedule that identifies the labor hours, labor rates, and cost by labor classification for each budget year. Also indicate the basis of the labor classification, number of hours, and labor rates. An example of the basis for the labor classification and number of hours could be past experience, engineering estimate, etc. An example of the basis for the labor rates could be actual rates for the individuals who will perform the work or an average labor rate for the labor classification or a departmental average rate.

FRINGE BENEFITS -- Provide the method used to calculate the proposed rate amount. If a fringe benefit has been negotiated with, or approved by, a Federal Government agency, provide a copy of the agreement. If no rate agreement exists, provide a detailed list of the fringe benefit expenses (e.g., payroll taxes, insurances, holiday and vacation pay, bonuses) and their associated costs. Identify the base for allocating these fringe benefit expenses.

TRAVEL -- For each proposed trip, provide the purpose, number of travelers, travel origin and destination, number of days, and a breakdown of costs for airfare, lodging, meals, car rental, and incidentals. The basis for the airfare, lodging, meals, car rental, and incidentals must be provided, such as past trips, current quotations, Federal Travel Regulations, etc.

EQUIPMENT -- Provide an itemized list of each piece of equipment, its unit costs, and the basis for estimating the cost, for example, vendor quotes, catalog prices, prior invoices, etc.

SUPPLIES -- Provide an itemized list of supplies; identify the quantity of each item, its unit cost, and the basis for estimating the cost, for example, vendor quotes, catalog prices, prior invoices, etc.

CONTRACTUAL

Consultants -- Provide the hourly or daily rate along with the basis for the rate. Furnish resumes or similar information regarding qualifications or experience. Provide at least two invoices reflecting hourly or daily rates charged to customers other than the Government. A statement signed by the consultant certifying his or her availability and salary must be provided. If travel or incidental expenses are to be charged, give the basis for these costs.

Subcontractors -- Identify each planned subcontractor and its total proposed budget. Each subcontractor's budget and supporting detail should be included as part of the Applicant's budget narrative. In addition, the Applicant shall provide the following information for each planned subcontract: a brief description of the work to be subcontracted; the number of quotes solicited and received; the cost or price analysis performed by the Applicant; names and addresses of the subcontractors tentatively selected and the basis for their selection; i.e. low bidder, delivery schedule, technical competence; type of contract and estimated cost and fee or profit; and, affiliation with the Applicant, if any.

CONSTRUCTION -- Provide detail of construction costs, if applicable.

OTHER DIRECT COSTS -- Provide an itemized list with costs for any other item proposed as a direct cost and state the basis for each proposed item.

INDIRECT COSTS -- If indirect rates have been negotiated with or approved by a Federal Government agency, please provide a copy of the latest rate agreement. If you do not have a current rate agreement, submit an indirect cost rate proposal which includes the major base and pool expense groupings by line item and dollar amount. In either case, provide a breakdown of the proposed indirect costs for each of your accounting periods included in the application. Identify the rate and allocation base for each indirect cost, such as Overhead, General and Administrative, Facilities Capital Cost of Money, etc.

COST SHARING – (Reference Article 3.2) - Identify the percentage level and source of cost sharing for the proposed project. Firm funding commitments are expected and documentation of those commitments must be included in the application. Additionally, the impact of DOE's cost share to the viability of the project must be addressed, to include justification for the need for Federal Funds.

NOTE: The **total project cost** (i.e. sum of Applicant and other participants plus DOE cost shares) must be reflected in each budget form.

A detailed estimate of the cash value (basis of and the nature, e.g., equipment, labor, facilities, cash, etc.) of all contributions to the project by each participant must be provided. Note that "cost-sharing" is not limited to cash investment. In-kind contributions (e.g., contribution of services or property; donated equipment, buildings, or land; donated supplies; or unrecovered indirect costs) incurred as part of the project may be considered as all or part of the cost share. The "cost-sharing" definition is contained in 10 CFR 600.30, 600.101, 600.123, 600.224, and OMB Circular A-110.

Reimbursement of actual costs will only include those costs that are allowable and allocable to the project as determined in accordance with the applicable cost principles prescribed in 10 CFR 600.127.

3.2 ALLOWABLE /UNALLOWABLE PROJECT COSTS FOR COST SHARING

Allowable and allocable direct and indirect project costs shall be determined by the Federal Cost Principles applicable to the award. In addition to these cost principles, the guidelines contained in this Article shall be utilized by the DOE to determine allowable and allocable project costs, as well as to determine that portion of allowable and allocable project costs considered appropriate for cost sharing purposes.

All project costs should be calculated and proposed in a manner which is both cost effective and consistent with standard commercial practices in the industry.

For determining whether costs are allowable or unallowable for this award, as provided in Sections (A) and (B) below, an "existing facility" includes all downhole hardware (e.g. casing, tubing, packers, pumps, etc.) and all supporting surface facilities (e.g. power lines, surface separation tanks, pumping units, and/or ancillary supporting facilities) dedicated to performance of the proposed project and in existence at the project site at the time of proposal submission.

(A) ALLOWABLE PROJECT COSTS FOR COST SHARING

DOE shall share in the following allowable project costs:

1. EXISTING FACILITY

(a) ALLOWABLE OPERATING COSTS

If the cost of operation at an existing facility is increased as a direct result of the proposed project, only the additional operating cost associated with the incremental activity caused by the project will be allowable for cost sharing purposes (e.g. additional labor, additional electricity, additional services, etc.).

The baseline upon which to calculate additional incremental operating costs at an existing facility will be the average activity level occurring during the one year period immediately prior to the date of proposal submission.

(b) ALLOWABLE CAPITAL COSTS

Modifications

The cost of modifications to an existing facility will only be allowable for cost sharing purposes where it is determined such modifications are specifically required in order to perform an incremental activity associated with the proposed project.

New Equipment

For newly purchased equipment required to perform an incremental project activity, the acquisition cost of such equipment shall be allowed as a project cost.

Existing Equipment

For existing equipment (i.e. equipment falling under the possession and control of the proposer which is not dedicated to the project nor located at the project site) required in order to perform an incremental project activity, a fair market value shall be allowed as a project cost. The fair market value shall be calculated based upon a reasonable industry accepted method such as independently secured appraisals, competitive bids, recent and related sales histories, and/or published prices appearing in industry trade catalogs and/or publications.

Repair or Replacement

The cost of repairing or replacing existing equipment located at an existing facility shall only be allowed for project cost sharing purposes where the repair or replacement is required to perform an incremental activity necessitated by the project (e.g. the need to recomplete a well in preparation for or during project performance, the need to replace or repair damaged tubing in preparation for or during project performance, etc.).

2. NEW FACILITY

All costs of drilling, completion, construction and operation of new wells and surface facilities necessary for the project are allowable for cost sharing purposes.

3. SHUT-IN WELLS

The costs of re-opening, operating, and making equipment modifications to a shut-in well will be considered allowable for project cost sharing purposes only where the shut-in well meets one of the following conditions:

- (1) The well must not have been in operation at any time during the one year period immediately preceding the proposal submission date; or
- (2) The well must have had its tubing pulled and its casing plugged prior to the proposal submission date.

(B) UNALLOWABLE PROJECT COSTS FOR COST SHARING

1. EXISTING FACILITY

Neither the cost nor value of an existing facility is eligible for cost sharing under this program.

2. DIRECT COSTS OF NEGOTIATIONS

Costs incurred in negotiating a Cooperative Agreement with DOE are not allowable as direct charges to the project.

3. BASIS FOR DEPRECIATION

DOE shall not accept valuation for property sold, transferred, exchanged, or manipulated in any way to acquire a new basis for depreciation purposes or to establish a fair use value in circumstances which would amount to a transaction for the purpose of the Cooperative Agreement.

4. DIRECT COST VS. DEPRECIATION

DOE will not share in both the direct cost and depreciation on the same item. Depreciation is not allowable for cost sharing on any item previously charged to the project as a direct cost. For example, DOE will cost share the direct cost on equipment or facilities purchased or constructed for the project but will not also cost share the depreciation.

5. INTEREST AND FINANCING COSTS

Interest on borrowings (however represented) and other financial costs such as bond discounts, cost of financing and refinancing capital (net worth plus long-term liabilities), are unallowable project costs and will not be cost shared. This includes interest on funds borrowed for construction.

6. FACILITIES CAPITAL COST OF MONEY

Facilities capital cost of money shall be an unallowable cost on all real property or equipment acquired by or on behalf of the Participant in connection with the performance of the project.

7. RESEARCH, DEVELOPMENT OR EXPLORATION COSTS

Previously expended research, development, or exploration costs are not cost sharing for the purposes of this PON.

8. FORGONE FEE, PROFIT OR REVENUE

Forgone fees, forgone profits, or forgone revenues are not allowable costs. Such costs shall not, therefore, qualify as cost sharing, nor will DOE pay any portion of such costs.

9. FEE OR PROFIT

Fee or profit will not be paid to any member of the proposing team having a substantial interest in the project. Competitive subcontracts (e.g., routine supplies, equipment, etc.) placed with the prior written consent of the Contracting Officer and subcontracts for routine supplies and services are not covered by this prohibition.

10. VALUATION OF PATENTS AND PROPRIETARY DATA

Patents and proprietary data will not be valued in determining the Participant's cost share in the project.

11. PAST, PRESENT OR FUTURE FEDERAL GOVERNMENT CONTRACTS

Allowable costs under past, present or future Federal Government contracts, cooperative agreements or grants may not be charged against this Cooperative Agreement. Likewise, the Participant may not charge costs allowable under this project, including any portion of its cost share to the Federal Government under any other contracts, cooperative agreements, or grants.

12. DEPLETION ALLOWANCE

Depletion allowance is not an allowable project cost.

13. BUSINESS LOSSES

Business losses are not an allowable project cost.

3.3 SUBMISSION REQUIREMENTS (APR 2003)

ELECTRONIC SUBMISSION

Applications must be submitted through the DOE Industry Interactive Procurement System (IIPS) at <http://e-center.doe.gov> in accordance with the instructions in this solicitation. **ONLY APPLICATIONS SUBMITTED THROUGH IIPS WILL BE CONSIDERED FOR AWARD.**

ELECTRONIC SIGNATURE

Applications submitted through IIPS constitute submission of electronically signed applications. The name of the authorized organizational representative (i.e., the administrative official, who, on behalf of the proposing organization, is authorized to make certifications and assurances or to commit the applicant to the conduct of a project) must be typed in the signature block on the

form to be accepted as an electronic signature. A scanned copy of the signed document is not required.

IIPS REGISTRATION

In order to submit an application, you must be authorized by the applicant (i.e., institution or business entity) to submit an application on its behalf and you must register in IIPS. You are encouraged to register as soon as possible. You only have to register once to apply for any DOE award.

To register:

- Go to the IIPS website at <http://e-center.doe.gov>.
- Click on the “Register” button on the left.
- Click on the box that says, “Check this box for Acquisitions greater than Simplified Acquisitions threshold or financial assistance” and then click on the radio button next to the “Register only” option.
- Click on “Proceed to Form.”
- Read the “Security Alert” and click on “Yes” to proceed.
- Read the “Notice of Disclaimer” and click on “I Accept.”
- Complete the Registration Form.
- Click on “Submit Registration.” You will receive an acknowledgement confirming receipt Of your registration.

Then you will receive an email confirming successful registration. If you do not receive an email confirmation within one business day, contact the IIPS Help Desk at 1-800-683-0751 and select option 1, or send an email to IIPS_HelpDesk@e-center.doe.gov.

Note the user name on your confirmation and your password for future reference. You must use this user name and password for any applications submitted in IIPS.

SUBMIT APPLICATION

You are strongly encouraged to submit your application or pre-application at least 24 hours before the deadline in order to have time to resolve any transmission problems. If you are registered in IIPS, you may use the IIPS test site at <http://doe-iips.pr.doe.gov/iips/busopor.nsf/TestSolicitation?OpenView&login> to practice submitting an application. You can also access the test site from the link provided at the top of each solicitation page.

To submit an application, complete the following steps:

STEP 1 -- PREPARE APPLICATION

Prepare all of the files in accordance with the instructions in this solicitation prior to starting the transmission process. You should submit the entire application package in one IIPS session (i.e., do not logoff before all the files are attached).

STEP 2 - LOCATE SOLICITATION AND CREATE APPLICATION

- Enter the IIPS website at <http://e-center.doe.gov>.
- Click on “Login” button on the left.
- Click on the radio button that says, “Industry Interactive Procurement System.”
- Enter your user name (as shown on your registration email confirmation) and password. (Note: These are case sensitive.)
- The “View Opportunities as Sorted by....” screen will appear. Click on one of the choices and locate the solicitation.
- Click on the solicitation number and the Financial Assistance Form will appear.
- Click on “Create Application” and complete the information on the Application Cover Page by entering the project title and the principal investigator/project director, if any, in the “Subject” blank.
- Click on the “Continue Button”

STEP 3 --- ATTACH FILES AND SUBMIT APPLICATION

- Click on “Attach Application” link.
- Attach each file in the corresponding block on the page and then click “Submit.”
- IIPS will provide an acknowledgement.
- Click on the link on the acknowledgement to verify submission. It will take you to your submission.
- In order to verify successful transmission at a later date, click on the yellow folder beside the solicitation number. Your application should appear.

QUESTIONS OR PROBLEMS WITH TRANSMISSION

View the “IIPS Frequently Asked Questions” by clicking on the “Help” button. You may also call 1-800-683-0751 and select option 1, or send an email to IIPS_HelpDesk@e-center.doe.gov, for help with the IIPS system. If you have questions on the content of the solicitation, follow the directions for “Submit Question on the Content of the Solicitation.”

IIPS USER GUIDE

Additional instructions are available in the IIPS User Guide. Click on the “help” button to access the guide.

3.4 REVISIONS, DELETIONS, AND WITHDRAWAL OF APPLICATIONS (JAN 2003)

REMOVE APPLICATION OR APPLICATION FILE(S) FROM IIPS

To delete or withdraw an application or an application file(s), send an email to the IIPS Help Desk requesting the application or file(s), be removed. Be sure to identify your user name, the applicant's name, and the subject, as shown on the cover page of the application.

SUBMIT REVISED APPLICATION

Follow the steps in “Submit Application or Pre-application” to submit a revised application (i.e. cover page and all required files).

SUBMIT REVISED FILE

After the Help Desk has removed the requested file from your application:

- Locate the solicitation.
- Click on the yellow folder next to the solicitation number.
- Click on the cover page of your submission, click on the “Attach Application” link, and attach the revised file. In the event that two files, with identical names, are included in an application, the file with the latest transmission date/time stamp will be considered for review, if it is received prior to the deadline.

3.5 UNNECESSARILY ELABORATE APPLICATIONS AND FILE SIZE LIMITATIONS (FEB 2003)

Unnecessarily elaborate applications beyond those sufficient to present a complete and effective response to this solicitation are not desired. Elaborate art work, graphics and pictures may increase the document's file size. It is suggested that in preparing your application that you create files less than 5 MB. However, this file size may not be appropriate in all situations. As the nature of the application may create large files, Applicants may wish to use “Zip” file compression software such as WinZip. Using this compression software will diminish the file size, thus reducing the time needed to upload and download an application.

3.6 TREATMENT OF PROPRIETARY INFORMATION (AUG 1999)

An application may include technical data and other data, including trade secrets and/or privileged or confidential commercial or financial information, which the applicant does not want disclosed to the public or used by the Government for any purpose other than application evaluation. To protect such data, the applicant should specifically identify each page including each line or paragraph thereof containing the data to be protected and mark the cover sheet of the application with the following Notice as well as referring to the Notice on each page to which the Notice applies:

NOTICE OF RESTRICTION ON DISCLOSURE AND USE OF DATA

The data contained in pages [] of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data therein to the extent provided in the award. This restriction does not limit the Government’s right to use or disclose data obtained without restriction from any source, including the applicant.

DOE shall not refuse to consider an application solely on the basis that the application is restrictively marked.

3.7 APPLICATION SUBMISSION REQUIREMENTS FOR PARTICIPATING DOE M&O CONTRACTORS, NON-DOE FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC'S) OR FEDERAL AGENCIES (JAN 2003)

In addition to the application information to be provided by the applicant as set forth in other parts of this Section, the following additional requirements are required if your application includes work to be performed by a DOE M&O contractor, Non-DOE FFRDC, or Federal agency:

JUSTIFICATION

For participation by a DOE M&O contractor, authorization is required from the DOE Contracting Officer. The applicant must submit a document from the DOE Contracting Officer or authorized designee stating that the DOE M&O contractor is authorized to participate in the proposed work effort.

For FFRDC contractors (other than DOE M&O contractors), the proposed use of such entity must be consistent with the FFRDC authority under its contract with the cognizant Federal agency and such work must not place the FFRDC in direct competition with the private sector.

For Federal agencies, the proposed effort must not place the agency in direct competition with the private sector. DOE will fund the other agency work through an interagency agreement.

WORK-SCOPE

The application must provide a scope of work for the effort to be performed by the applicant and a separate scope of work for the effort to be performed by the DOE M&O contractor, FFRDC, or Federal agency. If the applicant is teaming with a DOE M&O contractor, see DOE Order 412.1-Work Authorization System (<http://www.directives.doe.gov/>) for further submission instructions regarding Field Work Proposals, which is the vehicle used to fund the DOE M&O contractor.

COST INFORMATION

In addition to the Application for Federal Assistance (SF 424), the application must include a budget page with cost information for that portion of the applicant's effort in the project and for the DOE M&O, FFRDC or Federal agencies' portion of the project. The cost information should be submitted in the same format and level of detail as indicated above for the purposes of evaluation. An applicant's cost sharing requirement shall be based on the total cost of the project, including the applicant, FFRDC, DOE M&O or Federal agencies' portions of the effort.

TEAMING AGREEMENT

Describe the managerial arrangement between the applicant and the DOE M&O contractor, FFRDC or Federal agency.

DOE will review the application to determine that it meets these criteria and reserves the right to reject any application that fails to do so.

SECTION IV - EVALUATION AND SELECTION

4.1 INTRODUCTION (MAY 2000)

This section contains the evaluation approach as well as the individual criteria to be used in the evaluation of applications.

4.2 GENERAL (JULY 1999)

It is the policy of DOE that any financial assistance be awarded through a merit-based selection process which means a thorough, consistent and independent examination of applications based on pre-established criteria by persons knowledgeable in the field of the proposed project.

4.3 PRELIMINARY REVIEW (JAN 2003)

Prior to a comprehensive evaluation, applications will undergo an initial review to determine whether the information required by the solicitation has been submitted and is properly completed. Applications will be reviewed for relevance to the Microhole Technology Development program and for responsiveness to the requirements of the solicitation. Applications will be reviewed to assess the Applicant's eligibility under the lobbying, EPO Act and Simpson-Craig Amendment requirements. Failure to successfully meet any one of these preliminary review criteria may result in the elimination of the application and no further consideration in the Comprehensive Evaluation. **Applications which exceed the maximum DOE funding shown in Article 2.2 will be rejected.** In the event that an application is eliminated, a notice will be sent to the Applicant stating the reason(s) that the application will not be considered for financial assistance under this solicitation.

4.4 COMPREHENSIVE EVALUATION (FEB 2003)

Applications passing the preliminary evaluation shall be subject to a comprehensive evaluation in accordance with the technical evaluation criteria listed in this section.

The technical evaluation is conducted to determine the technical merits of the application with regard to the potential success of the project as well as future commercial applications. Comprehensive evaluation results in a numerical score for each application against each of the technical evaluation criteria.

The budget evaluation, which is not point scored, is conducted to determine the completeness of the cost estimate, appropriateness and reasonableness of the cost, and to assess the applicant's understanding of the Statement of Project Objectives.

4.5 TECHNICAL EVALUATION CRITERIA (FEB 2003)

DOE believes a thorough, concise application can be prepared within the requested 100 page limit prescribed in the Application Preparation Instructions in Section III. Applications that contain a Technical Discussion in excess of the requested 100 page limit shall receive a significant weakness under the technical evaluation criteria of this solicitation.

Applications submitted in response to this solicitation will be evaluated and scored in accordance with the criteria and weights listed below:

Criteria for AREA 1

Criterion 1 - TECHNICAL MERIT (50%)

The application will be evaluated to determine the overall technical merit of the project and the ability of the project to achieve the objectives of the solicitation. The application will be evaluated on the overall quality, soundness and reasonableness of the applicant's proposed work based on the following:

1. The relationship of the proposed work to DOE's goals and objectives and the objective of the solicitation.
2. The rationale supporting the selection of the locations and testing plans
3. The completeness and suitability of the drilling and completion plan and justification of methods used.
4. The completeness and quality of the economic benefits discussion and two Authorizations for Expenditures (AFE) (i.e. Reasonable assumptions and predictions).

Criteria for AREA 2

Criterion 1 - TECHNICAL MERIT (50%)

1. The relationship of the proposed work to DOE's goals and objectives and the objectives of this solicitation.
2. The innovative or revolutionary advancement of the proposed work over existing equipment, and the identification of specific technical hurdles that must be overcome.
3. The completeness and quality of the conceptual drawings and discussions to describe the raw materials or components to be used to manufacture equipment; the engineering design application specifications, and the basic design calculations to support conceptual specifications, demonstrating how the equipment will work in theory.
4. The adequacy of the Quality Control standards or protocols, any corporate R&D history, product test capabilities and proposed test standards.
5. The completeness and adequacy of the project milestone schedule
6. The appropriateness of the selection and justification of the decision points in the project, especially between Budget Period 1 and Budget Period 2.
7. The completeness and quality of the described economic benefits to industry of new tool and the way they are calculated.

CRITERIA 2, 3 AND 4 ARE THE SAME FOR AREA 1 AND AREA 2

Criterion 2 – ORGANIZATION, MANAGEMENT, KEY PERSONNEL, FACILITIES AND EQUIPMENT (30%)

The application will be evaluated on the qualifications and relative experience of the Organization, key personnel, management, and existing facilities/equipment and any subcontractors or partners that impact the ability of the project to meet the solicitation objectives. The applicant's Organization and Management will be evaluated based on the following:

1. The project organization, structure, responsibilities and lines of authority of the participating organizations and key personnel.
2. Adequacy of the management and labor plan.
3. The credentials, capabilities, experience (technical and managerial), and availability of the key personnel involved with the project
4. The credentials, capabilities and experience (technical and managerial) of the organizations involved in the project..
5. Corporate history and demonstrated ability to manage projects of similar size and complexity.
6. Adequacy of travel plan.
7. The type, quality, availability and appropriateness of existing facilities and equipment utilized to carry out the proposed work.
8. Justification for any new facilities and/or equipment needed to be purchased.

Criterion 3 – TECHNOLOGY TRANSFER PLAN (10%)

In exchange for co-funding these Microhole Technology/Equipment Development projects, DOE is seeking an aggressive exchange and dissemination of all project activities to the general public.

1. Adequacy and anticipated effectiveness of the proposed plan for transferring the knowledge, methodology, data, and techniques, learned while conducting the project, to the E&P community. Identification of methods beyond simple DOE reporting planned for conducting effective technology transfer to generate interest and gain industry acceptance (e.g., scientific presentations/papers; websites; site visits; etc.). Identification of the target audience.
2. Capability and commitment of the proposed project team to effect technology transfer throughout the entire project.

Criterion 4 – STATEMENT OF PROJECT OBJECTIVES (SOPO) (10%)

The application will be evaluated to determine the overall soundness, quality and reasonableness of the applicant's SOPO. Factors to be considered are:

1. Quality and completeness of the proposer's SOPO consistent with the format provided.
2. Reasonableness and logical sequence of the tasks in the applications SOPO.

4.6 ENVIRONMENTAL EVALUATION CRITERIA (JUNE 2001)

The Environmental Questionnaire (contained in Certifications and Assurances – FILENAME 540_1-4.doc) will be evaluated in order to: 1) determine adequacy and completeness of furnished data; 2) assess the applicant's awareness of environmental requirements, including mitigating any project related risks and impacts.

4.7 BUDGET EVALUATION CRITERIA (FEB 2003)

The budget information will be evaluated in response to this solicitation in order to:

- a) Determine the level of verifiable cost sharing;
- b) Ensure that all work elements included in the Statement of Project Objectives have associated costs, and that those cost appear appropriate and reasonable for the effort proposed; and
- c) Assess the applicant's understanding of the Statement of Project Objectives.

4.8 RELATIVE ORDER OF IMPORTANCE OF EVALUATION CRITERIA (FEB 2003)

The Technical Evaluation is more important than the Budget and Environmental Evaluations, however, the Budget and Environmental Evaluations shall be considered in making the selection decision.

4.9 APPLICATION OF PROGRAM POLICY FACTORS (FEB 2003)

These factors, while not indicators of the Application's merit, e.g., technical excellence, cost, Applicant's ability, etc., may be essential to the process of selecting the application(s) that, individually or collectively, will best achieve the program objectives. Such factors are often beyond the control of the Applicant. Applicants should recognize that some very good applications may not receive an award because they do not fit within a mix of projects which maximizes the probability of achieving the DOE's overall research and development objectives. Therefore, the following Program Policy Factors may be used by the Source Selection Authority (SSA) to assist in determining which of the ranked application(s) shall receive DOE funding support.

- 1. It is desirable to select for award a group of projects which represents a diversity of technical approaches and methods that cover each of the two (2) Areas of Interest, including the four (4) technical topics under Area 2;
- 2. It may be desirable to support complementary and/or duplicative efforts or projects, which, when taken together, will best achieve the research goals and objectives;
- 3. It is desirable that different kinds and sizes of organizations be selected for award in order to provide a balanced programmatic effort and a variety of different technical perspectives;

4. It is desirable, because of the nature of the energy source, the type of projects envisioned, or limitations of past efforts, to select for award a group of projects with a broad or specific geographic distribution.

The above factors will be independently considered by the SSA in determining the optimum mix of applications that will be selected for support. These policy factors will provide the SSA with the capability of developing, from the competitive solicitation, a broad involvement of organizations and organizational ideas, which both enhance the overall technology research effort and upgrade the program content to meet the goals of the DOE.

4.10 BASIS FOR SELECTION AND AWARD (MAY 2000)

The Department of Energy anticipates the award of one or more financial assistance instruments to those applicants whose applications are determined to be in the best interest of the Department in achieving the program objectives set forth in this solicitation. Selection of an application by the Department will be achieved through a process of evaluating and comparing the relative merits of the applicant's complete applications, in accordance with all of the evaluation factors set forth in this section.

This process reflects the Department's desire to accept an application based on its potential in best achieving program objectives, rather than solely on evaluated technical merit or cost. Accordingly, the Department of Energy may select for an award all, none, or any number or part, of an application, based on its decision as to which meritorious applications best achieve the program objectives set forth in this solicitation.

It is important for applicants to note that selection for negotiations will be made entirely on the basis of applications submitted. Applications should, therefore, address specifically the factors mentioned in the evaluation criteria, and not depend upon reviewers' background knowledge.